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## CERTIFICATE

This certificate is issued in support of an application for Patent registration in a country outside New Zealand pursuant to the Patents Act 1953 and the Regulations thereunder.

I hereby certify that annexed is a true copy of the Provisional Specification as filed on 21 August 2003 with an application for Letters Patent number 527753 made by KENT AARON NIXON; CRAIG DESMOND GORDO and CARISSA RONELLE GORDON.

Dated 31 August 2004.

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Commissioner of Patents, Trade Marks and Designs



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527753

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Our Ref: WEJ504503

Patents Act 1953

PROVISIONAL SPECIFICATION

**BEVERAGE CONTAINER HOLDING APPARATUS**

We, **KENT AARON NIXON**, a New Zealand citizen, of 93 Arthur Street, Onehunga, Auckland 1006, New Zealand, **CRAIG DESMOND GORDON**, an Australian citizen of 33a Matai Road, Greenlane, Auckland, New Zealand and **CARISSA RONELLE GORDON**, a New Zealand citizen of 33a Matai Road, Greenlane, Auckland 1005, New Zealand do hereby declare this invention to be described in the following statement:

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## DRINK CONTAINER HOLDING APPARATUS

### Field of the Invention

5 This invention relates to drink container holding apparatus and has been adapted particularly, but not solely, for providing a drink container holder which is suitable for affixing to movable objects such as prams, buggies, wheelchairs, bicycles, golf trundlers and similar objects.

### Background to the Invention

10 Users of objects such as prams, buggies, wheelchairs, bicycles, golf trundlers and similar objects frequently wish to carry a drink container such as a water bottle, for example, while using the object. In the case of bicycles, drink containers are often provided affixed to the bicycle frame. A disadvantage with these holders is that they are 15 located in a stationary orientation relative to the frame so they are not always suitable for an open drink container such as a cup. Another disadvantage is that the holder is not always easily removed from the frame to which it is attached.

20 It is an object of the present invention to provide drink container holding apparatus which obviates or minimises one or more disadvantages of known devices, or to at least provide the public with a useful choice.

### Summary of the Invention

25 Accordingly, in one aspect the invention may broadly be said to provide drink container holding apparatus including a bracket adapted for attachment to an object and including a holder engagement means, a drink container holder including bracket engagement means to engage with the holder engagement means, the engagement means when engaged allowing relative angular movement between the bracket and the holder in a selected plane, and the construction and arrangement of the engagement 30 means being such that the holder and the bracket can be engaged or disengaged by orientating the holder and the bracket in a pre-determined relative angular disposition in the selected plane and moving the bracket and holder relative to each other in a direction 35 perpendicular to the selected plane to effect engagement or disengagement.

Preferably the holder engagement means includes a receptacle having an entry slot and the bracket engagement means includes a projection adapted to pass through the entry slot.

5 Preferably the projection is provided on a shaft that can pass through the entry slot.

Preferably the receptacle includes support means for receiving and supporting a part of the shaft.

10 Preferably the projection includes two projecting portions, one portion projecting from either side of the shaft and the projections being substantially opposed.

15 Preferably the bracket is provided in at least two parts, and at least two of the parts containing a recess which provides a receptacle when the parts are attached to each other.

20 Preferably the entry slot is oriented so that it is at an angle of substantially 45 degrees to 90 degrees to the usual orientation of the projection in use.

25 Preferably the holder includes a ring for receiving a drink container.

Preferably the holder includes a frame to carry or hold a drink container.

25 Preferably the parts of the bracket are fastened to each other about a part of the object to which the apparatus is attached in use.

30 Preferably each part of the bracket includes a fastening recess adapted to be provided about a part of the object in use.

35 Preferably the apparatus includes fastening means for fastening the parts of the bracket together.

#### Brief Description of the Drawings

35 One or more examples of embodiments of the invention will be described with

reference to the accompanying drawings in which

5 **Figure 1:** Is an exploded perspective view of drink container holding apparatus

5 **Figure 2:** Is a diagrammatic perspective view illustrating engagement of the apparatus of Figure 1

10 Referring to Figure 1, drink container holding apparatus is shown for attachment to a part of an object such as a tubular or rectilinear section 1 which may be part of a vehicle, for example, such as a pram, buggy, wheelchair, bicycle or golf trundler.

15 The apparatus broadly includes two main elements, being a bracket which in the preferred embodiment is provided in two parts 2 and 3 to bracket about tube 1, and a holder having a frame 9. The holder in use holds or carries the drink container which may be a coupled bottle for example, and engages with the bracket portions as will be described further below.

20 The bracket can be made of a variety of materials, but is most preferably made of a plastic or metallic material, for example an alloy, which may be cast or machined, for example, into a desired form such as that shown in the drawing figures. The bracket is designed to bracket on to a nominated tubular or rectilinear section such as tube 1. The rectilinear section could be hollow or solid and the bracket is intended to create a frictional engagement with the section 1, preferably without damaging the section or requiring any special machinery or specialised technique for assembly. As shown in Figure 1, the bracket is preferably provided in two parts. However, more parts may be provided if desired. Also, the bracket could be manufactured from a single unitary piece of material which has sufficient inherent movement or flexibility to enable a bracketing action to be achieved. For example, an integral or living hinge could be provided in the material from which the bracket is manufactured. As shown in the drawing, the bracket may be easily removed from the section 1 if required.

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35 The bracket includes removed sections generally referenced 10. In the preferred embodiment these are substantially the same in each part of the bracket, however, they could be different if desired. The recesses 10 include shaft receiving portions 11 and 11a, an extended recess 12 and an entry recess 13. The shaft recess 11 and entry recess 13 together define a slot 5 when the bracket portions are connected together. Although the

shaft receiving recess 11A is provided, it will be seen that this is not essential.

The recess portions 10 may be formed in a variety of ways, for example by casting or machining.

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Those skilled in the art will realise that the bracket can be constructed so as to fit a variety of pipe or section sizes. Also, various packers, for example rubber or plastic packers may be used to ensure a tight fit between the section and the bracket even if the pipe section size is less than the finished production internal diameter size of the bracketing portion of the bracket formed by bracketing recesses 14. It will be seen that in the preferred embodiment the bracket is reversible (i.e. can be used upside down) so that it may be affixed to the left or righthand side of a device, such as a pram, to suit the preference of the end-user. Apertures 4 provide locations for suitable fasteners (not shown) such as screws, bolts or the like which may be used to fasten the bracketing portions together about section 1.

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The holder is designed to hold a variety of different liquid receptacles. These may be supported by ring 8 for example which could be provided alone without the remainder of the holder frame 9. Alternatively, the holder frame 9 can be provided alone, or in a different design which is sufficient to carry a desired form of drink container without requiring ring 8. Examples of liquid receptacles or containers that may be carried by the holder include sipper bottles, bicycle drink bottles and paper and plastic vessels as distributed by coffee and convenience stores to hold hot or cold drinks. The holder can hold the bottles or containers upright as shown in the drawing and preferably holds them relatively firmly in such a way that they may be removed by lifting vertically from the holder.

The ring 8 can also be configured so as to be of an inverted conical configuration as shown in Figure 1 whereby it is adapted to hold the other end of a common tapered disposable cup.

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The holder includes a shaft 7 on which one or more projection 6 are provided.

Referring to Figure 2, any sort of engagement or disengagement of the holder to the bracket is illustrated. Firstly, the holder is rotated until it is at an angle whereby the projections 6 are aligned with slot 5 as indicated by arrow 20. When this selected relative

angular disposition has been achieved, the holder is moved toward the bracket so that the projection 6 are received within slot 5. This general movement is indicated by arrow 21. The movement continues until the projection 6 are received within the extended recess 12 (refer Figure 1). Once this orientation has been achieved, and the holder is released, it will tend to rotate to the generally vertical position as shown in Figure 1. In this position, the projections 6 are securely retained within extended recesses 12, so movement of the holder in a direction opposite to that of arrow 21 will not result in disengagement being achieved. Disengagement of the holder from the bracket will only occur when the one or more projections 6 are aligned with the slot 5 as illustrated in Figure 2 so that movement in a direction opposite that of arrow 21 will allow disengagement to occur.

As can be seen from the drawing figures, the holder is free to move angularly, i.e. rotatably, in a plane which will be generally parallel to a longitudinal axis of any cup or bottle held in the holder. Therefore, when the apparatus is affixed to a handle of a pram, for example, any drink which is held in the holder will be maintained in a substantially upright position despite rocking movement of the pram. Therefore, contents of bottles are unlikely to be spilt from the holder. Also, the arrangement is such that disengagement will not naturally occur unless the holder is rotated to an approximately 90 degree position in the embodiment shown in the drawings. Those skilled in the art will appreciate that the slot 5 may be provided at other orientations, for example a 45 degree orientation from which the holder will still be unlikely to be released during natural use of the apparatus.

The invention provides considerable advantages over existing arrangements.

Where in the foregoing description reference has been made to specific components or integers of the invention having known equivalents then such equivalents are herein incorporated as if individually set forth.

Although this invention has been described by way of example and with reference to possible embodiments thereof, it is to be understood that modifications or improvements may be made thereto without departing from the scope of the invention.

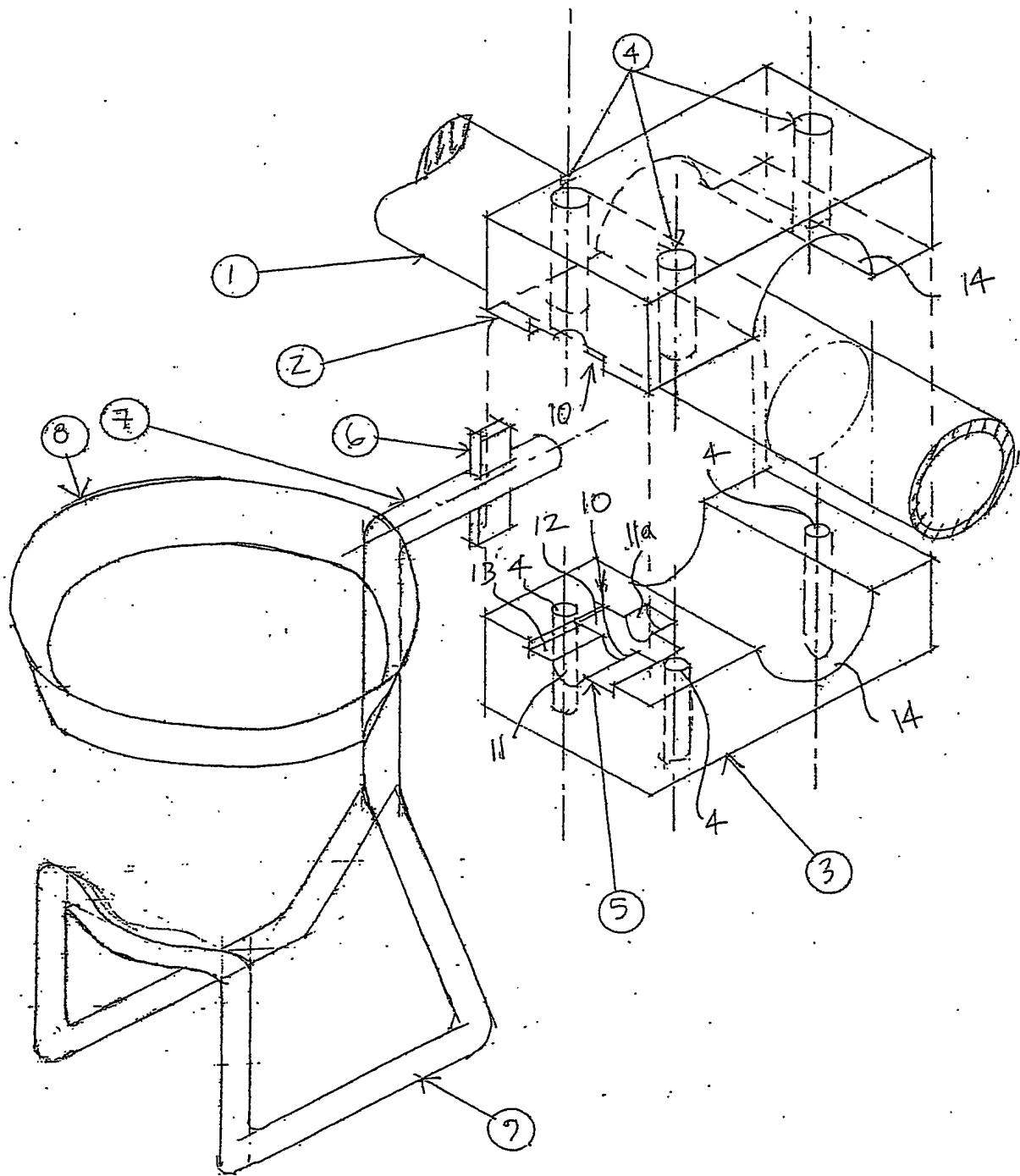


FIGURE 1

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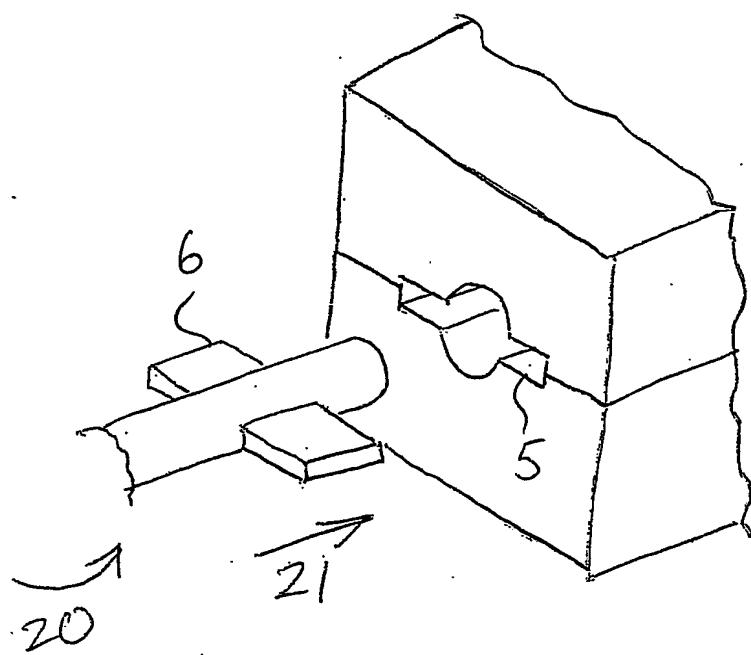


FIGURE 2

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